



United States Department of Agriculture
Animal and Plant Health Inspection Service
Program Aid No. 1950

The Centers for Epidemiology
and Animal Health:

Working To Safeguard
Animal Health Through
Innovation and Teamwork



The Centers for Epidemiology and Animal Health (CEAH)–

part of Veterinary Services (VS) within the U.S. Department of Agriculture's Animal and Plant Health Inspection Service (APHIS)—supports the VS mission to protect and improve the health, quality, and marketability of our Nation's animals, animal products, and veterinary biologics. CEAH also collaborates with the World Organization for Animal Health (OIE) in documenting livestock diseases within the United States.



With its headquarters based at the Natural Resources Research Center in Fort Collins, CO, CEAH is staffed by a unique group of scientists and specialists including veterinary epidemiologists, spatial analysts, computer specialists, data managers, technical writers, agricultural economists, and statisticians.



OUR MISSIONS

To protect the United States from adverse animal-health events

To monitor and conduct surveillance of the Nation's livestock, poultry, and aquaculture populations

To anticipate and respond to new or emerging animal-disease threats

To expand domestic and international marketability of our Nation's animals, animal products, and veterinary biologics

Overall, CEAH:

- Provides timely, factual information about commercial livestock, poultry, and aquaculture;
- Explores and analyzes animal health and related agricultural issues;
- Provides technological and analytical support for animal health emergencies;
- Analyzes adaptability of new technologies for animal health support;
- Identifies and monitors global environmental changes that could impact animal health issues;
- Analyzes potential domestic impacts of international animal- and human-health events;
- Provides technical and scientific support to OIE;
- Implements, supports, and maintains VS Enterprise Information Technology Systems; and
- Facilitates informed decisionmaking for government and industry animal-health management.



Emerging Issues

CEAH continuously monitors and tracks the worldwide animal-health environment to analyze data and trends that might impact animal and public health in the United States. Should an animal-disease outbreak occur in another country, APHIS specialists examine that country's production and trade in livestock and livestock products and identify the impact the foreign disease could have on animal agriculture.

- A business intelligence team, using a variety of futuring tools and electronic scanning techniques, identifies possible scenarios that might result from changes in the global and domestic environment. Results of this analysis help VS managers more accurately plan budgets and program activities.
- CEAH manages a geographic information system to support VS' need for spatial analyses. Spatial analysis is the process of examining and interpreting modeling results. A model is a representation of reality used to simulate a process, understand a situation, predict an outcome, or analyze a problem.



Surveillance

Activities related to animal health surveillance are coordinated by the CEAH team. These activities include planning, designing, and prioritizing surveillance activities; coordinating and integrating surveillance information; analyzing data; and evaluating surveillance programs. Team members collaborate with partners and stakeholders in academia and the private sector.

- CEAH played a key role in VS' enhanced bovine spongiform encephalopathy (BSE) surveillance and designed a surveillance plan for long-term assessment of BSE prevalence among U.S. cattle.
- CEAH led the development of a national surveillance plan to detect highly pathogenic avian influenza in the United States.
- CEAH is collaborating on a wide variety of specific animal-disease surveillance programs.



Animal Health Monitoring

The CEAH staff design the National Animal Health Monitoring System (NAHMS) studies of livestock, poultry, and aquaculture populations, focusing on animal health itself and the management practices associated with animal health and productivity. CEAH staff also are responsible for data validation, analysis, and dissemination of study findings. This work requires a close partnership with the industries and affected stakeholders.

Specific studies for equine, swine, dairy, beef cow-calf, feedlot cattle, sheep, poultry, and catfish have been conducted. These studies help the targeted industry by providing reliable and valuable information that producers can use to safeguard their herds and improve animal husbandry practices. The studies help VS enhance the effectiveness and efficiency of surveillance.

Targeted studies and ongoing monitoring activities are used to provide interim data between major national studies. The staff also updates demographic data and identifies programs and strategies used to ensure animal health and welfare. The United States Animal Health Report, produced by CEAH, provides a comprehensive annual overview of the Nation's livestock, poultry, and aquaculture commodities, as well as a status update on all VS monitoring and surveillance activities and emergency response activities.

Information and Data Systems

CEAH specialists collect, manage, analyze, and disseminate information that is critical to APHIS initiatives and VS programs. CEAH's computer scientists develop and implement complex information systems that give VS managers access to the enterprise data they need to make strategically correct decisions. CEAH employees also develop risk assessment methods and conduct assessments for VS programs that support U.S. trade and regionalization goals.

- A CEAH risk-analysis team develops regulatory-impact and disease-spread simulation models and analyzes scenarios that could be problematic or increase risks.
- CEAH's information technology staff develops and provides oversight for the information technology component of the National Animal Identification System, including helping States and the livestock industry design, approve, and implement animal-tracking databases.
- Working with key laboratory representatives, CEAH has developed and implemented an information technology structure that allows the standardized and secure sharing of diagnostic data by each of the laboratories participating in the National Animal Health Laboratory Network.
- CEAH has the lead role in creating an electronic system for assuring that livestock moving interstate or internationally meets the appropriate health requirements.
- Another of CEAH's many contributions is implementation of a Web-based system allowing VS to electronically support all surveillance and animal-disease programs.

International Collaboration

CEAH is designated as a collaborating center of OIE for animal disease surveillance and risk analysis. As an OIE collaborator, CEAH is helping build, maintain, and promote internationally accepted, science-based methods for risk analysis and animal disease surveillance.

- CEAH integrates epidemiology expertise and cultural awareness into the trade risk-analysis process.
- CEAH develops and delivers training in veterinary epidemiology and risk analysis internationally.
- CEAH also provides consultation and expertise to OIE to help their experts develop international standards on disease surveillance and risk analysis.

For More Information

To learn more about CEAH programs, please contact us by phone on (970) 494-7200 or visit our Web page at www.aphis.usda.gov/animal_health/ceah.



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